We claim:

1. An open color management system allowing any of a plurality of input color devices to share data with any of a plurality of output color devices comprising:

an networked connection space for input and output device communication;

an input color profile for each input device;

an output color profile for each output device; and

an open color manager to link a given input device with a selected output device, including a configuration to parse an input color space data set comprising black plus multiple color channels with the input and output color profiles at a job time to create an output color space data set comprising black plus multiple color channels for imaging by said selected output device while substantially preserving black channel information.

2. An open color management system as in claim 1 wherein:

said open color manager resides on said given input device;

said given input device provides said input color profile; and

said selected output device provides said output color profile.

3. An open color management system as in claim 1 wherein:

said open color manager resides on said given input device;

said given input device provides said input color profile; and

a remote database, which also communicates on said network connection space, provides said output color profile.

4. An open color management system as in claim 1 wherein:

said open color manager resides on said given input device;

a remote database, which also communicates on said network connection space, provides said input color profile; and

said selected output device provides said output color profile.

5. An open color management system as in claim 1 wherein:

said open color manager resides on said given input device;

a remote database, which also communicates on said network connection space, provides said input color profile; and

the remote database provides said output color profile.

6. An open color management system as in claim 1 wherein:

said open color manager resides on said selected output device;

said given input device provides said input color profile; and

said selected output device provides said output color profile.

7. An open color management system as in claim 1 wherein:

said open color manager resides on said selected output device;

said given input device provides said input color profile; and

a remote database, which also communicates on said network connection space, provides said output color profile.

8. An open color management system as in claim 1 wherein:

said open color manager resides on said selected output device;

a remote database, which also communicates on said network connection space, provides said input color profile; and

said selected output device provides said output color profile.

9. An open color management system as in claim 1 wherein:

said open color manager resides on said selected output device;

a remote database, communicating on said network connection space, provides said input color profile; and

the remote database provides said output color profile.

10. An open color management system as in claim 1 wherein:

said open color manager resides on a remote processing device communicating on said networking connection space;

said given input device provides said input color profile; and

said selected output device provides said output color profile.

11. An open color management system as in claim 1 wherein:

said open color manager resides on a remote processing device communicating on said networking connection space;

said given input device provides said input color profile; and

a remote database, communicating on said networking connection space, provides said output color profile.

12. An open color management system as in claim 1 wherein:

said open color manager resides on a remote processing device communicating on said networking connection space;

a remote database, communicating on said networking connection space, provides said input color profile; and

said selected output device provides said output color profile.

13. An open color management system as in claim 1 wherein:

said open color manager resides on a remote processing device communicating on said networking connection space;

a remote database, communicating on said networking connection space, provides said input color profile; and

the remote database provides said output color profile.

14. An open color management system as in claim 1 wherein said input color space dataset is further selected from the group consisting of CMYK, SWOP CMYK, and Euro CMYK.

15. An open color management system as in claim 1 wherein said output color space dataset is further selected from the group consisting of CMYK, CMYK-plus-light magenta-plus-light cyan, and CMYK-plus-orange-plus green.

16. An open color management system as in claim 1 wherein:

said given input device is selected from the group consisting of electronic displays, digital cameras, scanners, personal computers, laptops, hand-held computers, and graphic arts software running on a processor; and

said selected output device is selected from the group consisting of inkjet printers, electrophotographic printers, and lithographic printers.

17. An open color management system as in claim 1, wherein said input color profile further comprises:

an input gamut surface data set; and

an input look-up table for conversion from said input color space dataset to a profile connection space while preserving any input black information.

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18. An open color management system as in claim 17, wherein said output color profile further comprises:

an output gamut surface data set;

an output look-up table for conversion from said output color space dataset to said profile connection space while preserving any output black information; and

optionally, an output ink limit dataset to be used in conjunction with said output gamut surface data set.

19. An open color management system as in claim 18, wherein said open color manager further comprises:

a processing means for transforming said input color space dataset to said profile connection space and said input black information;

a processing means for comparing, in said profile connection space, said input gamut surface data set with said output gamut surface data set to determine a gamut mapping function and a black mapping function;

an optional processing means for applying said optional output ink limit data set to said gamut mapping function to optimize said gamut mapping function;

a processing means for applying said black mapping function to said input black information to determine said output black information, thereby enabling direct control of said output black information by adjusting said input black information;

a processing means for adjusting said profile connection space data from said given input device to said selected output device by applying said gamut mapping function; and

a processing means for converting said gamut-adjusted profile connection space data to said output color space dataset by applying said output lookup table from said output color profile in conjunction with said output black information.

20. An open color management system as in claim 19, wherein said profile connection space is CIE L*a*b.

21. An open color management system as in claim 19, wherein said profile connection space is CIE XYZ.

23. An open color management system as in claim 19, wherein said profile connection space is CIE CAM97 Jab.

24. An open color management system as in claim 19 wherein said input color space dataset is further selected from the group consisting of CMYK, SWOP CMYK, and Euro CMYK.

25. An open color management system as in claim 19 wherein said output color space dataset is further selected from the group consisting of CMYK, CMYK-plus-light magenta-plus-light cyan, and CMYK-plus-orange-plus green.

26. An open color management system as in claim 19 wherein:

said given input device is selected from the group consisting of electronic displays, digital cameras, scanners, personal computers, laptops, hand-held computers, and graphic arts software running on a processor; and

said selected output device is selected from the group consisting of inkjet printers, electrophotographic printers, and lithographic printers.

27. A method for open color management comprising:

connecting a plurality of input devices and a plurality of output devices to a network space;

initiating contact with a selected output device by a given input device;

linking an input color profile with an output color profile;

processing an input color data set comprising black plus multiple color channels; and

passing output color data with substantially preserved black channel levels to said selected output color device.

28. A method for open color management according to claim 27, wherein:

said processing an input color data set further comprises processing said input color data set through a real-time gamut mapping and color space conversion while substantially preserving black channel information.

29. An open color manager for use in an open color management system comprising:

a processing means for transforming an input color space dataset to a profile connection space while maintaining input black information;

a processing means for comparing, in said profile connection space, an input gamut surface data set with an output gamut surface data set to determine a gamut mapping function and a black mapping function;

an optional processing means for applying an optional output ink limit data set to said gamut mapping function to optimize said gamut mapping function;

a processing means for applying said black mapping function to said input black information to determine output black information, thereby enabling direct control of said output black information by adjusting said input black information;

a processing means for adjusting said profile connection space data, associated with said input color space dataset, to a gamut-adjusted profile connection space data by applying said gamut mapping function; and

a processing means for converting said gamut-adjusted profile connection space data to an output color space dataset by applying an associated output lookup table from an associated output color profile data structure in conjunction with said output black information.

30. An open color manager according to claim 29, wherein said profile connection space is CIE L*a*b.

31. An open color manager according to claim 29, wherein said profile connection space is CIE XYZ.

32. An open color manager according to claim 29, wherein said profile connection space is CIE CAM97 Jab.

33. An open color management system allowing any of a plurality of input color devices to share data with any of a plurality of output color devices comprising:

a networked connection space for input and output device communication;

an input color profile for each input device comprising:

an input gamut surface data set; and

an input look-up table for conversion from said input color space dataset to CIE L*a*b* profile connection space while preserving any input black information;

an output color profile for each output device comprising:

an output gamut surface data set; and

an output look-up table for conversion from said output color space dataset to said CIE L*a*b* profile connection space while preserving any output black information; and

an open color manager comprising:

a processing means for transforming said input color space dataset to said CIE L*a*b* profile connection space and said input black information;

a processing means for comparing, in said CIE L*a*b* profile connection space, said input gamut surface data set with said output gamut surface data set to determine a gamut mapping function and a black mapping function;

a processing means for applying said black mapping function to said input black information to determine said output black information, thereby enabling direct control of said output black information by adjusting said input black information;

a processing means for adjusting said CIE L*a*b* profile connection space data from said given input device to said selected output device by applying said gamut mapping function; and

a processing means for converting said gamut-adjusted CIE L*a*b* profile connection space data to said output color space dataset by applying said output lookup table from said output color profile in conjunction with said output black information.